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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/079,723	02/19/2002	Yong-Jun Kwak	678-807	7600

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EXAMINER

MILLS, DONALD L

ART UNIT PAPER NUMBER

2616

SHORTENED STATUTORY PERIOD OF RESPONSE	MAIL DATE	DELIVERY MODE
3 MONTHS	03/08/2007	PAPER

Please find below and/or attached an Office communication concerning this application or proceeding.

If NO period for reply is specified above, the maximum statutory period will apply and will expire 6 MONTHS from the mailing date of this communication.

Office Action Summary

Application No.

10/079,723

Applicant(s)

KWAK ET AL.

Examiner

Donald L. Mills

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 04 December 2006.
- 2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-3 and 7-9 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-3 and 7-9 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
- ☐ Certified copies of the priority documents have been received.
 - ☐ Certified copies of the priority documents have been received in Application No. _____.
 - ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|--|---|
| 1) <input type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | 5) <input type="checkbox"/> Notice of Informal Patent Application |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08)
Paper No(s)/Mail Date _____ | 6) <input type="checkbox"/> Other: _____ |

DETAILED ACTION

Claim Rejections - 35 USC § 103

1. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

2. Claim 1-3 and 7-9 are rejected under 35 U.S.C. 103(a) as being unpatentable over Wu (6,836,469) in view of Fang (US 5,481,561).

Regarding claims 1 and 7, Wu discloses a medium access control protocol for multi-channel communication, which comprises:

Generating a dummy bit generation request signal in the absence of the transmission data; upon receipt of the dummy bit generation request signal, generating a dummy bit stream by attaching the CRC bit stream to the dummy bit stream CRC (Referring to Figure 10, during the contention phase (generating a request in the absence of data) of the multi-channel MAC protocol of the WCDMA system, short packets 76₁-76₃ comprise dummy data (absence of transmission data) which are error-protected by an error detection code (CRC) are transmitted to the base station 75 via the M control channels 71₁-71_m when mobile stations 74₁-74₃ attempt transmission. See column 9, lines 7-8 and 19-27.)

Wu does not disclose *transmitting a dedicated physical data channel signal over a dedicated physical data channel in order to maintain the target SIR.*

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Wu teaches sending short packets comprising dummy data via control channels, and transmitting data packets 78₁-78₃ via data channels 70₁-70₃. Fang teaches mitigating “near-far” problems inherent in a CDMA system by sending dummy data in the speech pausing period in data channels (See column 4, lines 62-66.) The Examiner notes that “in order to maintain the target SIR” is an “intended use” limitation. The claimed invention must result in a structural difference between the claimed invention and the prior art in order to patentably distinguish the claimed invention from the prior art. The prior art structure is capable of performing the intended use, and thus meets the claim.

It would have been obvious to one of ordinary skill in the art at the time of the invention to implement the dummy data stuffing of Fang in the data channels of Wu with error detection. One of ordinary skill in the art at the time of invention would have motivated to do so in order to maintain clock and code synchronization during idle periods of speech as taught by Fang (See column 4, lines 50-67 and column 5, lines 6-8.)

Regarding claims 2 and 8 as explained in the rejection statements of claims 1 and 7, Wu and Fang teach all of the claim limitations of claims 1 and 7 (parent claims). Wu discloses *the dummy bit stream is equal in a number of bits to data bits transmitted over the control channel when the transmission data is present* (Referring to Figure 10, short packets 76₁-76₃ comprise a dedicated frame size thereby equivalent to data frame transmission.)

Wu does not disclose transmitting the dummy bit stream over the data channel.

Wu teaches sending short packets comprising dummy data via control channels, and transmitting data packets 78₁-78₃ via data channels 70₁-70₃. Fang teaches mitigating “near-far”

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problems inherent in a CDMA system by sending dummy data in the speech pausing period in data channels (See column 4, lines 62-66.)

It would have been obvious to one of ordinary skill in the art at the time of the invention to implement the dummy data stuffing of Fang in the data channels of Wu with error detection. One of ordinary skill in the art at the time of invention would have motivated to do so in order to maintain clock and code synchronization during idle periods of speech as taught by Fang (See column 4, lines 50-67 and column 5, lines 6-8.)

Regarding claims 3 and 9, Wu discloses *the dummy bit stream has a predetermined number of bits* (Referring to Figure 10, short packets 76₁-76₃ comprise a dedicated frame size therefore the frame comprises a predetermined number of bits.)

Response to Arguments

3. Applicant's arguments filed 04 December 2006 have been fully considered but they are not persuasive.

Rejection Under 35 USC 103

On page 5 of the remarks, regarding claims 1 and 7, the Applicant argues neither Wu nor Fang disclose, teach, or otherwise make obvious transmitting *a dedicated physical data channel signal over a dedicated physical data channel in order to maintain the target SIR*. The Examiner respectfully disagrees. The Applicant argues Fang's teaching does not correspond to "in order to maintain the target SIR." The Examiner respectfully disagrees. In response to Applicant's argument, a recitation of the intended use of the claimed invention must result in a structural difference between the claimed invention and the prior art in order to patentably distinguish the

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claimed invention from the prior art. The prior art structure is capable of performing the intended use, and thus it meets the claim. In addition, the Applicant argues the citation of Fang reveals something entirely different from “near-far” problems inherent in a CDMA system as stated by the Examiner. The Examiner respectfully disagrees. Fang teaches that “near-far” problems inherent in a CDMA system is mitigated by the use of uplink power control (See column 2, lines 13-15,) and is accomplished by reducing the power level of dummy data transmission (See column 4, lines 62-67 to column 5, lines 1-8.) Therefore, the rejection is both proper and correct.

Conclusion

4. Applicant's amendment necessitated the new ground(s) of rejection presented in this Office action. Accordingly, **THIS ACTION IS MADE FINAL**. See MPEP § 706.07(a). Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire **THREE MONTHS** from the mailing date of this action. In the event a first reply is filed within **TWO MONTHS** of the mailing date of this final action and the advisory action is not mailed until after the end of the **THREE-MONTH** shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than **SIX MONTHS** from the date of this final action.

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5. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Donald L. Mills whose telephone number is 571-272-3094. The examiner can normally be reached on 8:00 AM to 4:30 PM.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Seema Rao can be reached on 571-272-3174. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

Donald L Mills

DLM

March 2, 2007

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